

2006 Mobile Home Measures Corresponding WisWap Line Items

MHEA Modeling Requirements

Effective: April 1, 2006

Measure	General Policy	WisWap Code	Description	Units	MHEA Modeling/Measure Options
Shell and shell interactive Measures					
Test and Seal Duct Work	Use blower door and pressure pan or duct blaster to guide distribution sealing.	JHSM035	Seal Ducts	each	Model measure with MHEA.
	Seal and reroute return air system or returns in the belly to furnace compartment door.	JHSM020	Repair/Replace/Add Ductwork - First Floor	each	
	Seal major supply leaks. 1) furnace to plenum connection; boot to floor and boot to plenum duct, slip joint connections, and crossover connections in doublewide units.				
Repair Holes Belly	Repair any holes in the mobile home belly, using a proper repair material.	DIFL060	Polyisocyanurate Insulation Board R7-If tested w/ MHEA as cost-effective	sq ft	May charge as ECM if modeled with belly insulation and has SIR ≥ 1.0. Model repair measure with MHEA, using Itemized Cost tab. Check include in SIR.
	Note: Seal duct work in the mobile home belly prior to sealing belly.	ZRRS040	Other Repair-	each	
Floor Insulation	Insulate to maximum structurally allowable below the heating ducts.	DIFL025	Blown Fiberglass - Mobile Home R11	sq ft	Model measure with MHEA. Identify # of inches to closest R-value for WisWap report. Insulation value R 2.5/inch.
	If the cavity allows for less than 2"below the heating ducts, install insulation below the mechanical cavity and the ducts.	DIFL030	Blown Fiberglass - Mobile Home R19	sq ft	
	Note: Repair holes in the mobile home belly prior to insulation.	DIFL035	Blown Fiberglass - Mobile Home R30	sq ft	
		DIFL040	Blown Fiberglass - Mobile Home R38	sq ft	
		DIFL045	Polystyrene Insulation Board R5	sq ft	
		DIFL050	Fiberglass Batt R11	sq ft	
		DIFL055	Fiberglass Batt R19	sq ft	
Attic Insulation	Insulate to R-19, or maximum structurally allowable. Omit if available cavity space is less than 2 inches on average.	DIFL060	Polyisocyanurate Insulation Board R7	sq ft	Model measure with MHEA. . Identify # of inches to closest R-value for WisWap report. Insulation value R 2.5/inch. Include cost of attic access, when needed, in cost of attic insulation in MHEA. Identify costs separately for WisWap.
		DIA065	Blown Fiberglass - Mobile Home R11	sq ft	
		DIA070	Blown Fiberglass - Mobile Home R19	sq ft	
		DIA075	Blown Fiberglass - Mobile Home R30	sq ft	
		DIA080	Blown Fiberglass - Mobile Home R38	sq ft	
		DIA105	Fiberglass Batt R11	sq ft	
		DIA110	Fiberglass Batt R19	sq ft	
		DIA115	2 Part Foam	sq ft	
Sidewall Insulation	Insulate to R-11. Omit if remaining cavity is less than 2".	DIW035	Blown fiberglass - Mobile Home R11	each	Model measure with MHEA.
		DIW040	Fiberglass Batt - Mobile Home R11	sq ft	
Insider Storm Windows	Install insider storms whenever storm window is not present.	GWR020	Mobile Home Insider Storm	sq ft	Model measure with MHEA. Replacement windows may also be modeled as an ECM or Repair.
Air Sealing	Use Blower Door to guide sealing work, whenever possible	ABD005	Comfort Sealing - Non Blower Door Guided	each	DO NOT USE MHEA TO GUIDE AIR SEALING! USE WI PROTOCOLS.
	Seal all major bypasses and key junctures.	ABD007	WCEG Guided Sealing	CFM50 Re	
	Follow WI's Cost Effective Sealing, Depressurization and Building Tightness Guidelines.	ABD010	Blower Door Setup	each	
		ABD015	Non-Guideline Sealing	each	

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BASELOAD MEASURES: Baseload measure materials must be an ENERGY STAR qualified product, except for domestic water heater materials.		Code	Description	Unit	MHEA Modeling/Measure Options
Lighting.	Replace all incandescent light bulbs with ENERGY STAR qualified CFLs, where feasible.	PCFL005	CFL Bulb	each	DO NOT USE MHEA TO GUIDE LIGHTING RETROFITS! USE WI PROTOCOLS.
	Replace all halogen torchieres with CFL torchieres.	PCFL010	Halogen Torchiera Replacement	each	
		PCFL020	Exterior	each	
		PCFL025	CFL 3-Way Bulb	each	
Refrigerator Replacement.	Replace automatic defrosts units made before 1990. Properly dispose of old units.	URR005	Replacement	each	Model measure with MHEA.
		URR010	Remove Additional Unit (include \$50 incentive)	each	
Domestic Hot Water Treatments	Install showerheads, flow restrictors, insulate 6' of pipes from water heater.	MWHT005	Flow Restrictors	each	DO NOT USE MHEA TO GUIDE LOW COST WATER SAVING RETROFITS! USE WI PROTOCOLS.
		MWHT020	Showerhead	each	
	Reduce water heater temperature to 125 degrees.	MWHT010	Pipe Insulation	each	DO NOT USE MHEA TO GUIDE WATER HEATER TANK INSULATION. Water heater must have a minimum R-10 insulation. Insulate if R-value is <R10 and manufacturers allows additional tank insulation.
	Install water heater tank insulation on water heaters with <= R-10.	MWHT015	Reduce Temperature	each	
Freezer Replacement and Removal	Meter freezers operating in conditioned spaces to assess replacement eligibility. Freezers operating in garages or on porches are not eligible for replacement. Replace existing freezers that equal to or greater than 14 cubic feet, which have a metered Power Factor less than 0.75. Do not replace freezers that were manufactured during or after 1993. Properly dispose of old unit.	VFR005	Replacement	each	DO NOT USE MHEA TO GUIDE FREEZER MEASURES ! USE WI PROTOCOLS.
	For freezers not replaced: Offer a \$50 incentive for removal of additional functional units operating in conditioned spaces and not being replaced. Freezers operating in garages or on porches are not eligible for a bounty. Properly dispose of old unit.	VFR010	Remove Additional Unit (include \$50 incentive)	each	
MECHANICAL MEASURES					
Heating System* *Gas Furnaces must be replaced with current ENERGY STAR - qualified product	Clean and tune unit. Inspect units for health and safety problems.	JHSM005	Clean and Tune	each	Order Tune & Clean based on inspection. Do not model with MHEA.
		JHSM010	Disposable Filters	each	Do not use MHEA to guide filter replacement. Use WI Protocols.
		JHSM011	Cleanable Filters	each	
	Health & safety replacements that meet 1.0 BCR, using BCR sheet may be charged as a conservation measure.	JHSR015	Gas Mobile Home	each	Model measure with MHEA. Use high efficiency heating system.
		JHSR020	Gas Wall Furnace	each	
		JHSR015	Gas Mobile Home	each	
	Note: If heating system is replaced after shell measures are completed assure furnace to plenum and vent stack connection is sealed. See Duct sealing above.	JHSR045	Oil Mobile Home	each	
		JHSR050	Oil Wall Furnace	each	
Programmable Thermostats*	Install programmable thermostat when replacing thermostat. Follow guidelines in the Specifications and Standards. Properly recycle the old thermostat.	JHSM015	Setback Thermostat	each	Do not use MHEA to guide programmable thermostat installation. Use WI Protocols.
Water Heater Replacement	Convert electric to gas based on the guidelines. The replacement water heater must be a direct vent model, rated for mobile home use.	MWHC025	Gas, Mobile Home direct vent from electric	each	Model water heater fuel switch with MHEA.
		MWHC030	Tankless On Demand Gas	each	Installation allowed only with waiver, based on circumstances

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HEALTH AND SAFETY MEASURES		Code	Description	Unit	MHEA Modeling/Measure Options
Health and Safety: Miscellaneous	Eliminate hazards that pose an immediate threat to the health and safety of occupants. Follow guidelines in the Specifications and Standards.	XHAL005	CO Detector New or Replace	each	Use MHEA itemized Cost to select Health & Safety measure.
		XHAL010	Smoke Detector New or Replace	each	
		XHAL020	Combo Smoke/CO Detector New or Rep	each	
		XHAP015	Appliance Repair or Replace	each	
		XHAQ005	Worst Case Draft Test	each	
		XHAQ007	Chimney Liner	each	
		XHAQ025	Dehumidifier New or Replace	each	
		XHAQ030	Asbestos Removal	each	
		XHAQ035	Other Remediation	each	
		XHAQ040	Cook Stove Repair or Replace	each	
Health and Safety: Heating Systems		XHEL015	Upgrade or Repair Electric	each	Heating systems replaced using health & safety funds must have documentation of the existing condition. Use MHEA to model all furnaces for ECM replacement. If furnace does not come-up as an ECM measure, force the furnace by checking "Replacement Required". If furnace has an SIR <1.0 or causes belly insulation to be dropped from measures list, replace as a Health & Safety measure. Use MHEA itemized Cost to select Health & Safety measure.
		XHHS020	Furnace Replace	each	
		XHHS025	Furnace Repair	each	
		XHHS030	Ducts Repair or Replace	each	
		XHHS035	Space Heater Replace	each	
		XHHS040	Space Heater Repair	each	
		XHHS045	Wood Replace	each	
		XHHS050	Wood Repair	each	
		XHHS055	Electric Replace	each	
		XHHS060	Electric Repair	each	
		XHSS005	Chimney	each	Use MHEA itemized Cost to select Health & Safety measure.
		XHSS010	Floors	each	
		XHSS015	Roof	each	
		XHSS020	Walls	each	
		XHSS030	Lead Paint Remediation	each	
		XHSS035	Other Remediation	each	
Health and Safety: Air Conditioning	Install central or room air conditioning based on the health of the customer. Specific statement of conditions from medical professional required. Replacement must be ENERGY STAR eligible.	XHAC005	Central A/C New or Replace	each	Use MHEA itemized Cost to select HEALTH & SAFETY measure.
		XHAC010	Window A/C New or Replace	each	
		XHAC015	A/C Repair	each	
		XHAC020	Ceiling Fan New or Replace	each	
Health & Safety Water Heater Replacement	Assure natural gas or LP water heaters are properly drafting. See specifications and protocols for options. Options may include the installation of a replacement water heater. Replace or repair electric water heaters that are leaking.	XHHW003			Use MHEA itemized Cost to select HEALTH & SAFETY measure.
			Electric to Electric Mobile Home .90	each	
		XHHW004			
			Electric to Electric .94	each	
		XHHW005	Water Heater Replace	each	
		XHHW010	Water Heater Repair	each	
Health & Safety: Mechanical Ventilation	Install properly sized mechanical ventilation, when needed, to assure indoor air quality.	XHHW015	Plumbing Repair or Replace	each	Use MHEA itemized Cost to select HEALTH & SAFETY measure.
		XHAR005	Exhaust Ventilation	each	
		XHAR010	Exhaust Ventilation with Makeup Air	each	
		XHAR015	Heat or Energy Recovery Ventilator	each	

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REPAIR MEASURES		Code	Description	Unit	MHEA Modeling/Measure Options
Repair	Necessary repairs for the installation and preservation of weatherization materials. Follow guidelines in the Specifications and	ZRAQ005	Dryer Venting	each	Model repair measure with MHEA, using Itemized Cost tab. Check include in SIR.
		ZREL005	Upgrade or Repair Electric Service	each	
		ZRHW005	Water Heater Repair	each	
		ZRHW010	Plumbing Repair or Replace	each	
		ZRRS005	Chimney	each	
		ZRRS010	Floors	each	
		ZRRS015	Roof	each	
		ZRRS020	Walls	each	
Window Replacement *must be replaced with current ENERGY STAR -qualified product.	Install replacement windows only when an insider window will not address the problem. Follow guidelines and protocols outlined in the Specifications and Standards	ZRRS040	Other Repair	each	Model windows as ECM or Repair. WisWap line item will be activated for ECM mobile home windows. When repair use Itemized Cost tab. Check include in SIR.
		ZRRS045	Ventilation - Soffit/Roof/Gable	each	
		ZRRS035	Window Replacement U .35	sq ft	
Door Replacement *may be replaced with current ENERGY STAR-qualified product	Primary doors may be replaced only when the door cannot be repaired. Replacement doors must either be a standard mobile home replacement door or an R-9 ENERGY STAR qualified product.	ZRRS030	Door Replacement R9	sq ft	Model repair measure with MHEA, using Itemized Cost tab. Check include in SIR.